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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/081,084
Filing Date: February 22, 2002
Appellant(s): LAKSONO ET AL.

Ryan S. Davidson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/20/09 appealing from the Office action mailed 10/28/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,831,917	Cheriton	12-2004
6,532,562	Chou et al.	3-2003
6,987,728	Deshpande	1-2006
6,198,941	Aho et al.	3-2001

US Patent Publication Number 2002/0067730; Hinderks et al.; 6/6/2002

US Patent Publication Number 2001/0044835; Schober et al.; 11/22/2001

US Patent Publication Number 20020080802; Sachs et al.; 6-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31, 74, 76, 77, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton in view of Chou in view of Schober.

Referring to claim 31, Cheriton discloses a method comprising:

subscribing at the display device to a first channel of a plurality of channels of a multicast channel (column 7, lines 5-8; figure 5, part 550; column 2, lines 59-65), wherein each channel of the plurality of channels is used to provide a different version of a plurality of versions of a video stream, and where each version of the video stream includes a different resolution scale (column 6, lines 63-67; column 7, lines 1-5); and accessing the first channel to receive a version of the video stream associated with the first channel (column 7, lines 5-8).

Cheriton does not disclose a method including the steps of determining at a display device a first data transmission rate between the display device and a wireless access point; wherein subscribing at the display device to a first channel of a plurality of channels of a multicast channel is based on the first data transmission rate; and wherein the access point is a wireless access point.

In an analogous art, Chou teaches a method including the steps of determining at a display device a first data transmission rate between the display device and an access point; wherein subscribing at the display device to a first channel of a plurality of channels of a multicast channel is based on the first data transmission rate (column 8, line 66 to column 9, line 10).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the data transmission rate determining taught by Chou to the method disclosed by Cheriton. The motivation would have been to enable the receiver to only

be able to subscribe to channels that matched the receiver's available bandwidth, therefore allowing the system to preserve bandwidth.

Cheriton and Chou do not disclose a method wherein the access point is a wireless access point.

In an analogous art, Schober teaches a method wherein the access point is a wireless access point (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the wireless access point, as taught by Schober, in the method disclosed by Cheriton and Chou. The motivation would have been to enable the user to enjoy video playback while not being constrained to one physical location.

Claim 76 is rejected on the same grounds as claim 31.

Referring to claim 74, Cheriton discloses a method of claim 31, wherein accessing the select channel to receive the version of the video stream comprises associating the display device with a multicast group associated with the select channel (column 6, lines 18-21; column 6, line 63 to column 7, lines 8).

Claim 78 is rejected on the same grounds as claim 74.

Referring to claim 77, Cheriton and Chou do not disclose a display device of claim 76, wherein the display device comprises a wireless display device.

In an analogous art, Schober teaches a display device of claim 76, wherein the display device comprises a wireless display device (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the wireless display device taught by Schober in the method disclosed by Cheriton and Chou. The motivation would have been to enable the display device to be able to be used in places without a physical connection.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton in view of Chou in view of Schober as applied to claim 31 above, and further in view of Sachs.

Referring to claim 32, Cheriton, Chou, and Schober do not disclose a method of claim 31, wherein the multicast channel is based on a IEEE 802.11 standard.

Sachs discloses a method of claim 31, wherein the multicast channel is based on a IEEE 802.11 standard (paragraph 19, lines 2-9).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the wireless transmission taught by Sachs to the method disclosed by Cheriton, Chou, and Schober. The motivation would have been to enable the user to enjoy video playback while not being constrained to one physical location.

Claims 75 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton, Chou, and Schober as applied to the claims above, and further in view of Hinderks.

Referring to claim 75, Cheriton, Chou and Schober do not disclose a method of claim 31, wherein determining the select channel of the plurality of channels comprises

performing a table lookup based on the data transmission rate to identify the select channel.

In an analogous art, Hinderks teaches a method of claim 31, wherein determining the select channel of the plurality of channels comprises performing a table lookup based on the data transmission rate to identify the select channel (page 5, paragraph 54, lines 1-6 and 16-22).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the lookup table taught by Hinderks in the method disclosed by Cheriton, Chou, and Schober. The motivation would have been to enable the system to use a one-way network (page 5, paragraph 54, lines 16-22).

Claim 79 is rejected on the same grounds as claim 75.

Claims 58, 59, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou.

Referring to claim 58, Deshpande discloses a method comprising:
determining, at a networked display device, a first data transmission rate of a transmission connection of the networked display device at a first time (column 4, lines 32-36 and 40-44);

receiving, at the networked display device, a first multicast address from a plurality of multicast addresses based on the first data transmission rate (column 5, lines 3-8), each of the plurality of multicast addresses associated with a corresponding

version of a plurality of versions of a video stream (column 1, lines 22-26 and 57-67);
and

receiving, at the networked display device, a first version of the plurality of versions of the video stream via the transmission connection using the first multicast address for a first duration (column 2, lines 11-19; figure 3).

Deshpande does not disclose a method wherein the networked display device determines an address based upon available bandwidth.

In an analogous art, Chou teaches a method wherein the networked display device determines an address based upon available bandwidth (column 8, line 66 to column 9, line 10).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the data transmission rate determining taught by Chou to the method disclosed by Cheriton. The motivation would have been to enable the receiver to only be able to subscribe to channels that matched the receiver's available bandwidth, therefore allowing the system to preserve bandwidth.

Referring to claim 59, Deshpande does not disclose a method of claim 58, wherein receiving the first version of the plurality of versions of the video stream comprises: processing, at the networked display device, a plurality of transmitted data packets associated with the first multicast address and having data representative of the first version of the plurality of versions of the video stream.

In an analogous art, Chou teaches a method of claim 58, wherein receiving the first version of the plurality of versions of the video stream comprises: processing, at the networked display device, a plurality of transmitted data packets associated with the first multicast address and having data representative of the first version of the plurality of versions of the video stream (figure 2, part 230; figure 7)

At the time of the invention it would have been obvious for one of ordinary skill in the art to add video processing taught by Chou to the device disclosed by Deshpande. The motivation would have been that presenting the video to a user would require processing the video stream.

Referring to claim 73, Deshpande discloses a method of claim 58, wherein receiving the first version of the plurality of versions comprises associating the networked display device with a multicast group associated with the multicast address (column 4, line 58 to column 5, line 32).

Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Schober.

Referring to claim 60, Deshpande and Chou do not disclose a method of claim 58, wherein the transmission connection comprises a wireless connection between the networked display device and an access point.

In an analogous art, Schober teaches a method of claim 58, wherein the transmission connection comprises a wireless connection between the networked display device and an access point (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the wireless transmission taught by Schober in the method disclosed by Deshpande and Chou. The motivation would have been to enable the display device to be able to be used in places without a physical connection.

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Hinderks.

Referring to claim 61, Deshpande and Chou do not disclose a method of claim 58, wherein determining the first multicast address comprises performing a table lookup based on the first data transmission rate.

In an analogous art, Hinderks teaches a method of claim 58, wherein determining the first multicast address comprises performing a table lookup based on the first data transmission rate (page 5, paragraph 54, lines 1-6 and 16-22).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the lookup table taught by Hinderks in the method disclosed by Deshpande and Chou. The motivation would have been to enable the system to use a one-way network (page 5, paragraph 54, lines 16-22).

Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Aho.

Referring to claim 62, Deshpande and Chou do not disclose a method of claim 58, further comprising:

- determining, at the networked display device, a second data transmission rate of a transmission connection of the networked display device at a second time subsequent to the first time;

- determining a second multicast address from the plurality of multicast addresses based on the second data transmission rate; and

- receiving, at the networked display device, a second variation of the plurality of versions of the video stream via the transmission connection using the second multicast address for a second duration subsequent to the first duration.

In an analogous art, Aho teaches a method of claim 58, further comprising:

- determining, at the networked display device, a second data transmission rate of a transmission connection of the networked display device at a second time subsequent to the first time;

- determining a second multicast address from the plurality of multicast addresses based on the second data transmission rate; and

- receiving, at the networked display device, a second variation of the plurality of versions of the video stream via the transmission connection using the second multicast address for a second duration subsequent to the first duration (column 2, lines 66-67; column 3, lines 1-13).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the adaptive transmission rate method taught by Aho in the method disclosed by Deshpande and Chou. The motivation would have been to provide a system wherein the user can move away from the signal source without losing the feed (Aho: column 3, lines 7-13).

Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou in view of Aho as applied to claim 62 above, and further in view of Hinderks.

Referring to claim 63, the claim is rejected on the same grounds as claim 61.

(10) Response to Argument

On Page 6 of the Brief, last section:

The appellant argues that Cheriton teaches a system wherein each subscriber (figure 5, part 550) joins the same "single source multicast group" and that the subscribers will see that "all the traffic will appear to the subscribers as originating from a single virtual host." (column 3, lines 59 to column 4, line 5; column 4, lines 49-52). Therefore the reference does not meet the limitation of selecting a channel at the display device, as the display device would see only one channel.

This section of the reference teaches an embodiment wherein the broadcaster wants to have two sources of the same program being sent to the subscribers for the

purpose of redundancy (column 5, lines 22-28). The purpose would be that a subscriber (figure 5, part 550) would subscribe to a single address, which could be receiving PROGRAM 1 from HOST S1 (figure 5, part 510). If HOST S1 failed for some reason (communication failure, software crash, etc.), the system would route PROGRAM 1 to the subscriber from HOST S2 (figure 5, part 515) without having the subscriber needing to subscribe to another address. The result is that the failure would be transparent to the subscriber. The examiner agrees with the appellant's interpretation of this embodiment of the reference.

The examiner has used figure 7 of Cheriton (which represents a different embodiment of the invention, column 2, lines 34-50) to reject the claim limitations. As can be seen in figure 7, a single stream is received by the switch (figure 7, part 310) and is then transmitted using two separate channels (figure 7, parts 730a and 730b). This is the opposite of what is shown in figure 5, where two sources are combined into a single channel. The purpose of the embodiment shown in figure 7, is to take a program from a single source and create two versions of the program, one high quality and one low quality (column 6, line 63 to column 7, line 8). The purpose being that higher quality programs take up more bandwidth, so having a lower quality version allows for devices with slower connections (think dial-up versus cable broadband internet) to still be able to receive and watch the video program. Therefore Cheriton teaches a system where subscribers subscribe to either a high quality or low quality feed, which meets the limitation found in claim 31 (column 6, lines 18-21; column 6, line 63 to column 7, line 8).

Page 7, section beginning with "The Examiner":

The appellant notes that Chou was combined with Cheriton to teach "determining at a display device a first data transmission rate...,wherein subscribing at the display device to a first channel of a plurality of channels of a multimedia channel is based on the first data transmission." (Chou: column 8, line 66 to column 9, line 10)

Page 7, last section:

The appellant again argues that Cheriton teaches a device where all of the traffic is seen as coming from a single channel and if this were the case, the combination of Chou would be invalid as Chou would not be able to subscribe to one of the channels based on available bandwidth as Cheriton teaches a system with a single channel. As was shown above, the appellant is arguing a different embodiment than the one that was used in the rejection (figure 5 instead of figure 7). As the figure 7 embodiment teaches that there are multiple channels with varying quality levels being broadcast, one of ordinary skill in the art would have combined the transmission rate detecting and channel selecting based on available bandwidth as taught by Chou to the transmission system disclosed by Cheriton.

Page 8, last section:

The appellant answers the examiner's response in the last office action, in which the appellant is relying on a different embodiment than the one used in the examiner's

rejection. Specifically, that the embodiment taught by figure 7 has the same limitation of a single channel being seen by the receivers, and cites column 6, lines 58-62 as evidence. This section does teach that the source back-up is an important feature, but the section immediately preceding it (column 6, lines 53-58) refers to figure 5 as showing how this feature would be implemented. This portion (as interpreted by the examiner) explicitly shows that figure 7 does not teach the appellant's interpretation as it refers to figure 5 to show the implementation. It is the interpretation of the examiner that the portion cited by the appellant teaches that the Packet Receive Port (figure 7, part 310) would see only a single channel even if there were redundant sources in place as taught by figure 5. This addition would not change that figure 7 shows two separate and distinct channels being output by the switch.

The appellant goes onto argue that Cheriton describes a "NAT-compatible switch or router" and does not contemplate the operation of a receiver. Figure 7 teaches an embodiment where hosts can subscribe to either a high quality or low quality channel (column 7, lines 5-8). As the abstract recites providing video data to a client device, it is inherent that the video outputted by the switch shown in figure 7 would be received by client devices.

The appellant finally argues that as it's the hosts that subscribe to the channels, and not the clients, and that the system would not result in the claimed invention. Referring to figure 1, this shows the basic structure of how the internet works (column 2, lines 56-65). There is an Internet Service Provider (ISP; figure 1, part 110) that connects the clients (figure 1, parts 150) to the internet through a plurality of routers

(figure 1, parts 120, 130, and 140). If the system worked the way the appellant is assuming, each website (or web content) requested by the client would need a separate ISP. A client would need a Google ISP, an eBay ISP, a Wikipedia ISP, etc. to enable the client to use these services. This is not how the system works, instead we have one ISP (i.e. Comcast, Verizon etc.) that connects us to all the services and provides them all through one connection to our client devices. The examiner is interpreting that while figure 7's system may place both copies of the video content on the same connection at router 120 (being output by ports 730a and 730b), it is the different speeds that the end client is able to receive using the different routers (130 and 140) that allow the clients to subscribe to the different addresses (column 6, lines 18-21) and decide which copy the client receives. Therefore the figure 7 does show an embodiment that deals with client devices receiving different versions of the video data.

Page 9, section beginning with "Schober":

The appellant argues that as it has been shown that Cheriton and Chou have deficiencies when it comes to the claim limitations, that the claims are allowable. As the claims have shown to have been properly rejected, the argument is moot.

Page 9, section 2:

The appellant argues that as it has been shown that Cheriton and Chou have deficiencies when it comes to the independent claim limitations, that the dependent

claims are also allowable. As the independent claims have shown to have been properly rejected, the argument is moot.

Page 10, section B:

The appellant argues that as it has been shown that Cheriton and Chou have deficiencies when it comes to the claim limitations, that the claims are allowable. As the claims have shown to have been properly rejected, the argument is moot.

Page 11, last section:

The appellant argues that Hinderks (mistakenly referred to as Sachs) does not fix the deficiencies of independent claims 31 and 76, but as these rejections have been shown to be valid, the argument is moot.

Page 11, section beginning with "Moreover":

The appellant argues that Hinderks does not meet the limitation of "performing a table lookup based on the data transmission rate to identify the select channel" as Hinderks teaches looking up the address in a server database instead of locally (figure 1, part 101; paragraph 54). As the lookup table is not stored at the content provider (figure 1, part 100; paragraph 20), the receiver looking up the address at a lookup table stored in another location meets the limitation. Also, the claims do not limit the lookup table to be stored locally.

Page 12, last section:

The appellant describes the functionality of Deshpande.

Page 13, section beginning with "The disclosure":

The appellant argues that while Deshpande discloses that prior-art system implement receiver-subscribed multicasting of different video streams, the detailed description of Deshpande fails to disclose this concept. Deshpande teaches a system (column 4, line 58 to column 5, line 8; which is within the detailed description setting) wherein after the server divides up the video into a plurality of layers (which represent different quality levels; column 2, lines 10-20) and multicasts these layers to various receivers, which subscribe to only the layers that the available bandwidth will allow. As this section teaches both multicasting and receivers subscribing (or joining) streams, the limitations are found in the claims.

The appellant then argues that server, and not the receivers, play an active role in bandwidth allocation. This is the opposite of what is stated in the cited section of Deshpande (column 4, line 58 to column 6, line 8), which states that "During a layered multicast the source or server 22 transmits each layer of the layered signal to a separate multicast IP group address and **takes no active role in allocating bandwidth**" (column 4, line 65 to column 5 line 1). Therefore it is apparent that the receivers and not the server take the active role in allocating their own bandwidth.

The appellant finally argues that as Deshpande teaches a server based allocation system, Chou's receiver based system could not be combined with it. As has

been shown above, Deshpande does teach a receiver based system and therefore Chou would be able to be combined with it.

Page 15, last section:

The appellant argues that there the examiner does not cite a portion of the reference that teaches that the "server takes no active roll in allocating bandwidth to the receivers," despite referring to the portion in the sentence directly preceding it. Once again, Deshpande teaches that "During a layered multicast the source or server 22 transmits each layer of the layered signal to a separate multicast IP group address and **takes no active role in allocating bandwidth**" (column 4, line 65 to column 5 line 1).

Page 15, section 2:

The appellant argues that as it has been shown that Deshpande and Chou have deficiencies when it comes to the independent claim limitations, that the dependent claims are also allowable. As the independent claims have shown to have been properly rejected, the argument is moot.

Page 15, section E:

The appellant argues that as it has been shown that Deshpande and Chou have deficiencies when it comes to the independent claim limitations, that the dependent claims are also allowable. As the independent claims have shown to have been properly rejected, the argument is moot.

Page 16, section beginning with "As discussed":

The appellant argues that Hinderks does not fix the deficiencies of independent claim 58, but as this rejection has been shown to be valid, the argument is moot.

Page 11, section beginning with "Moreover":

The appellant argues that Hinderks does not meet the limitation of "performing a table lookup based on the data transmission rate to identify the select channel" as Hinderks teaches looking up the address in a server database instead of locally (figure 1, part 101; paragraph 54). As the lookup table is not stored at the content provider (figure 1, part 100; paragraph 20), the receiver looking up the address at a lookup table stored in another location meets the limitation. Also, the claims do not limit the lookup table to be stored locally.

Page 17, section G:

The appellant argues that as it has been shown that Deshpande and Chou have deficiencies when it comes to the independent claim limitations, that the dependent claims are also allowable. As the independent claims have shown to have been properly rejected, the argument is moot.

Page 17, section H:

The appellant argues that as it has been shown that Deshpande and Chou have deficiencies when it comes to the independent claim limitations, that the dependent claims are also allowable. As the independent claims have shown to have been properly rejected, the argument is moot.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Justin Shepard

/J. E. S./

Examiner, Art Unit 2424

8/27/09

Conferees:

/Christopher Kelley/

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Primary Examiner, Art Unit 2424